1999 Annual Report
Department of Information Technology

Gray Davis, Governor

Elias S. Cortez, Director

1999 Annual Report

Department of Information Technology

The information provided in this document is a Year 2000 Readiness Disclosure pursuant to the Year 2000 Information and Readiness Disclosure Act (Public Law 105-271).

Gray Davis, Governor

Elias S. Cortez, Director

December 1, 1999

Dear Governor Davis and Members of the Legislature:

Pursuant to Senate Bill 1 (Chapter 508, Statutes of 1995), I am pleased to deliver the *1999 Department of Information Technology Annual Report*. This is my initial report to you following my appointment by Governor Gray Davis as the Chief Information Officer in February 1999.

I was charged with managing the State's Year 2000 remediation efforts as my first priority after taking office. A great deal has been accomplished to prepare the state agencies for the Year 2000 change. Executive Order D-3-99 was critical to these accomplishments by making Year 2000 a priority technology focus and in bringing objective, independent, and critical leadership to this issue. The Legislature has also provided extensive financial support and continuing interest on the Year 2000 remediation efforts.

Beyond the Year 2000 remediation efforts, the State faces many challenges in information technology. These challenges include developing a system of delivering new successful information technology projects, reviewing the procurement system to recognize the special market for information goods and services, addressing the need to recruit and retain skilled personnel, averting project delays and cost overruns, and becoming the leading state in electronic government.

We believe that the approach utilized to successfully manage the Year 2000 effort may serve as the model for the oversight of future large information technology projects. With sponsorship from the Governor's Office, the commitment of the Executive branch, and support of the Legislature, we can look beyond the Year 2000 to identify the future role for technology in serving California's residents.

Sincerely,

Elias S. Cortez
Chief Information Officer
State of California

Table of Contents

The information provided in this document is a Year 2000 Readiness Disclosure pursuant to the Year 2000 Information and Readiness Disclosure Act (Public Law 105-271).


implementation
technology
millenium
implementation
planning
millenium
technology
planning
procurement
technology
millenium
technology
planning
procurement

Executive Summary

In February 1999, Governor Gray Davis issued Executive Order D-3-99, which established an unprecedented focus and collaboration among leading state information technology professionals to ensure that Year 2000 remediation work and testing was completed and that critical government services would be available to Californians at the turn of the century.

Through the Executive Order, Governor Davis provided the necessary executive sponsorship to complete this task. This Executive Order also created the "Diamond Team", which combined the information technology expertise resident within the Health and Welfare Data Center, Teale Data Center, and the telecommunications division of the Department of General Services, to enhance the Y2K focus and assist with the allocation of information technology resources throughout state government.

With the implementation of the Executive Order, the Governor appointed Elias Cortez as State Chief Information Officer and Director of the Department of Information Technology (the DOIT). Together these actions began a transformation of the State's approach to the Year 2000 problem and created a proactive solution. When 1999 began, the state's Year 2000 problems were complex and widespread, and the state's approach toward a solution was undersized and disorganized.

Now, near the end of 1999, the state's Year 2000 preparations are effectively complete. Director Cortez and his staff believe that the keys to the successful Year 2000 effort will open new doors to success in DOIT's ongoing mission to apply information technology to serve the needs of the state. These keys include:

- Seeking and carefully following the advice of the state's best private sector technologists

- Depending upon direct examination of records rather than relying on self-reporting
- Collaborating with the information technology leadership staff in other state entities
- Employing independent experts to review project plans, efforts and results
- Reporting status and issues clearly and openly
- Establishing a statewide project management office using proven management practices
- Insisting on objective metrics for progress and completion, and
- Involving all stakeholders in interdependent project teams

The state's current, multi-layered approach, which has been checked and independently rechecked, has ensured that the state's information technology systems and critical business functions are ready for the new year. While the DOIT and other state agencies have devoted most of their efforts to Year 2000 preparation, the DOIT, in collaboration with the Diamond Team and other state IT leaders has continued to reengineer the state's approach to information technology project development and implementation to ensure that those projects are successful and meet their business goals. The DOIT has also continued to encourage the management of the state's information technology infrastructure as an essential, enterprise resource.

The state's considerable information technology resources are now ready to move on to new challenges. The state has much work to do in renovating aging systems and in maintaining its already considerable investment in technology. More excitingly, the technologies of the internet and electronic commerce show ever-greater promise to help government to become at once better, faster, and cheaper, while supplying an unprecedented level of service to Californians and business partners.

The state's information technology leadership looks forward to establishing a more effective information technology governance structure and approach to enable information technology solutions that improve state services to the public. Further, the Administration will establish a common information technology architecture which will result in a common look and feel for the customer and enhance the ease to access government. This comprehensive approach will focus on eliminating the state's traditional approach to information technology and will create an open, progressive technology environment that will enhance the service delivery capability of all state government agencies. This important effort will be accomplished by the continued executive sponsorship of the Governor, support of the Legislature, and the active participation of the state's IT professionals.


Y2K
California
Year
2000

The Status of California for the Year 2000

1

The Davis Administration's Y2K Strategy

In an effort to ensure that the change of the century occurs as seamlessly as possible, Governor Davis issued Executive Order D-3-99 in February 1999. The Executive Order identified the Y2K challenge as the State's number one technology priority. Based on the Executive Order, the Department of Information Technology (DOIT) developed the *California Year 2000 Strategic Plan* to ensure that the Y2K challenge is effectively and appropriately met.

DOIT's Vision in Addressing Y2K

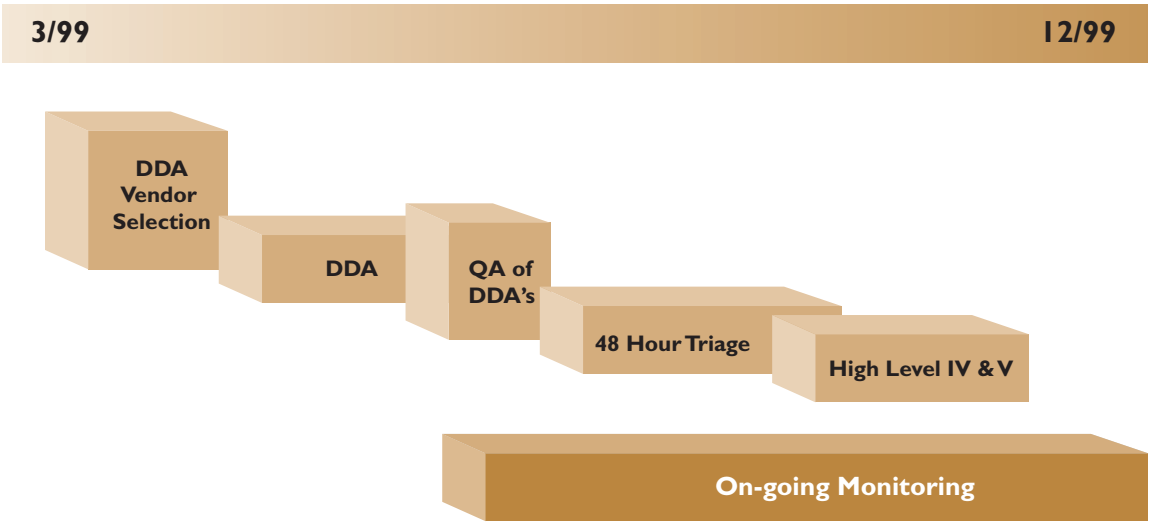
As recognized by the Governor's Executive Order D-3-99, preparation for the Y2K event is a complicated effort requiring information technology expertise and aggressive focus across the entire state enterprise. Y2K is not only an information technology challenge, but a *business* challenge. The DOIT has leveraged resources and expertise throughout all state entities to address the Y2K event.

Key to the DOIT Y2K approach was the establishment of a Y2K Program Management Office (PMO) to serve as the nucleus of all state entity technology efforts towards Y2K compliance. This approach has proven successful due to the standard and consistent methodologies employed by the Y2K PMO, and the unparalleled collaboration between State and local government entities.

The Y2K PMO provides coordination and monitoring activities for the State's Y2K efforts as they relate to information technology. The information collected by independent vendors during the Detailed Department Assessment (DDA) process was submitted to the Y2K PMO for compilation and further reporting. The DDA process resulted in an independent baseline, minimizing self-reporting, from which

to measure compliance status. Further, a separate independent vendor conducted an Independent Verification and Validation (IV&V) of each state entity's mission critical system-related documents. "Mission-critical" systems are those computer systems whose failure would significantly impair the delivery of human services, public safety, law and justice, environmental protection and public health services.

The comprehensive approach implemented by DOIT and the Y2K PMO to assess the mission critical systems is based on a sequence of events ranging from March 1999 to December 1999.



Overall Status of the State's Y2K Efforts

The comprehensive DOIT approach and the focused, hard work of all the state entities has resulted in the State of California becoming substantially on track, with the Y2K challenge for mission critical systems. As of November 19, 1999, the state is 97.6 percent complete.

Thirty-eight entities were identified as having mission critical systems. Twenty-nine have completed their activities and nine are currently working diligently to complete remediation of their mission critical systems. The Y2K PMO has developed a focused performance review process to monitor and work closely with these

entities. The Y2K PMO is tracking the progress of these entities, often on a daily basis, and provides troubleshooting and technical expertise as appropriate.

Overall Status of California's Mission Critical Systems by Category

Remediation Phase	*420 Mission Critical Systems (IT applications only)*	*497 Mission Critical Systems (IT applications and interfaces)*	*709 Mission Critical Systems (IT applications , embedded systems, external interfaces, desktops)*
Assessment	100%	100%	100%
Modification	99.5%	99.6%	99.4%
Testing	99.3%	99.2%	98.7%
Implementation	98.6%	98.4%	97.6%
Complete	**98.6%**	**98.4%**	**97.6%**

Mission critical systems are automated systems whose unavailability or failure, partial or complete, would significantly impact or impair the successful delivery of a vital government service or mission.

While the DOIT expects that most state entity systems will be remediated in time for the change of the century, each state entity has developed contingency and business continuity plans to ensure the continuation of essential services to the residents of California in the event of either internal or external Y2K problems. These plans were completed and tested by October 31, 1999 by all state entities

Significant plans are in place to increase the level of communication and outreach as the change of the century nears. As the new millennium draws closer and awareness of the event heightens, it is a top priority of the DOIT to disseminate accurate messages among state entity stakeholders and the public regarding the state's technology preparedness. The DOIT has undertaken a variety of tasks to communicate state Y2K status, and will continue to do so through the event.

Y2K Accomplishments

The aggressive timeline and the forward-thinking strategies documented in the *California Year 2000 Strategic Plan* and the subsequent *Escalation Plan* resulted in many accomplishments since the plan's inception in April 1999 including, but not limited to the following:

- Formed strategic task forces to tap the technology and business knowledge resident in both the public and private sector within the state.
- Streamlined the state funding processes and procedures for Y2K-related expenditures to ensure the prompt delivery of resources necessary to assist the agencies and departments to prepare for Y2K.
- Formed the Diamond Team (DOIT, Teale Data Center, Health and Welfare Data Center, and the Department of General Services Telecommunications Division) to coordinate the Y2K efforts of the State's four major technology departments through one cohesive partnership.
- Formed the Central Y2K Program Management Office (Y2K PMO) to establish methodologies for assessing agencies and departments, to assist agencies and departments with planning efforts, and to create a project management infrastructure that can be utilized by the DOIT for future oversight efforts.
- Developed, implemented, and maintained the PMO handbook, which details policies and procedures followed by the PMO and its affiliates to ensure consistent and appropriate documentation of the State's efforts to prepare for the Y2K.
- Developed and implemented a Statewide Y2K Independent Verification and Validation (IV&V) process to ensure that oversight of state efforts is monitored consistently and objectively.
- Created the Y2K PMO library to maintain all information pertaining to the assessment of each entity throughout the DDA, 48-Hour IV&V Triage, Corrective Action Plans, and high level IV&V processes.

- Conducted a Y2K Partnership Pilot Program with Merced County to evaluate the State's DDA methodology and toolkit in a local government environment.
- Established uniform metrics and a Statewide Y2K readiness baseline to track Y2K preparedness and resource issues in a timely, accurate, and consistent manner.
- Refined and automated the Y2K status reporting process for State agencies and departments providing monthly status updates on their progress towards Y2K preparedness.
- Facilitated access to Y2K specialty vendors and resources for use by State agencies and departments to address their remediation and testing needs.
- Increased Y2K awareness in the public and private sector through comprehensive outreach programs, including Y2K conferences in conjunction with the Governor's Office of Emergency Services, to communicate a message of concern and steps that can be taken to prepare for Y2K.
- Participated in several Y2K outreach meetings with Assemblyman John Dutra (D-Fremont), Chair of the Assembly Committee for Information Technology, in local communities throughout the state.
- Facilitated telecommunications network testing involving HWDC, TDC and PacBell.
- Initiated a test strategy and planning effort to ensure validation testing of mission critical systems and associated interfaces.
- Completed detailed department assessments by independent vendors for 103[1] of the 116 identified state entities. The top 45 entities that provide mission critical services to California residents have a complete DDA report and most have completed their Corrective Action Plan (CAP) efforts.
- Implemented online data capture and reporting of detailed department assessment results and ongoing progress updates provided by the entities.

[1] Thirteen state entities with constitutional or voluntary status were not required to participate in the DDA process.

- Implemented 48-hour triage and high level IV&V to add an additional layer of evaluation and oversight for state mission critical systems identified during the DDA process.
- Worked with State entities to ensure that they implement their Corrective Action Plan activities: including end-to-end testing, establishment of program management offices, and other key actions specific to the remediation status of the mission critical systems.
- Implemented a Corrective Action Plan tracking process to monitor the progress of State entities as they implemented the action items resulting from the detailed department assessments and the high level IV&V review.
- Implemented Continuity Planning for Business Methodologies to standardize the level of preparation and reporting associated with continuity and business resumption efforts.
- Designed and implemented the Event Management Center (EMC) Communications Center – A centralized communications center to facilitate collection of technology-related Y2K event-related information and timely reporting of information to key stakeholders. The EMC Communications Center will be managed by Y2K PMO staff during the century rollover event and will interact with the Governor's Office of Emergency Services, the *Follow the Sun* (see page 16) effort, and other key State government entities.
- Refined the State's Y2K Information Technology Website – Redesigned the State's Y2K website to provide additional communication vehicles to the DOIT and the Y2K PMO, as well as to facilitate exchange and reporting of State entity status information. Information to facilitate communication with the Legislature and their constituents, State government, local governments, and the general public have been added.
- Continued Communications Efforts – Facilitated industry-specific Roundtables, preparedness and business continuity planning conferences, distributed Y2K newsletters to state technology staff, and prepared collateral materials.

- Monitored Statewide Remediation Status – Achieved a 95 percent remediation status for mission critical systems on September 1, 1999, which was a self-imposed milestone, and implemented specific actions and a heightened monitoring process for those entities not complete with their remediation efforts. As of November 19, 1999, 97.6 percent of mission critical systems have been remediated. Obtaining a remediation status of this degree reflects the State's desire to meet the Y2K challenge and the focus applied to this effort by all State government entities.

These accomplishments demonstrate the State's aggressive pursuit to fulfill Governor Davis' Executive Order.

STATE Y2K STATUS

Y2K Reporting Compliance

Information regarding the status of the State's remediation efforts for mission critical systems is being provided to the Legislature and the Administration on a weekly basis. Remediation progress was tracked through the Y2K PMO by comparison of weekly update data to the baseline information provided during the DDA process.

Remediation Process Overview

Independent contractors were hired to conduct the DDA for 103 of the 116 entities identified by the State. The remaining 13 entities were not required to participate in the process due to their Constitutional independence or volunteer status. At the completion of the DDAs, 38 entities were identified as having mission critical systems that support essential services to the State.

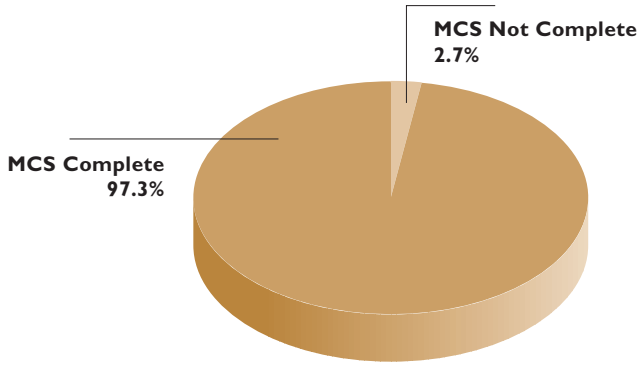
The DDA process, completed July 1999, established the baseline status of all mission critical systems throughout the State. With the baseline data in place, the state entities provided a weekly update to the Y2K PMO on the progress of their mission critical systems via a web tool application. Based upon the results of the

DDA, entities developed a corrective action plan (CAP) to address outstanding activities related to their mission critical systems. The state entities continue to provide updates to their CAPs and their mission critical systems on a weekly basis in order for the Y2K PMO to track and monitor progress.

Beyond the assessment process, which was conducted to standardize the remediation status reporting and planning process, an IV&V process was developed. This process is a distinguishing element of the State's remediation efforts compared to the efforts of many other states. Key individual issues were identified through this process that may not have been identified without it. The CAPs were subsequently updated with additional tasks resulting from the high level IV&V. IV&V focused on documents that support remediation. Issues identified include non-compliant systems as well as insufficient support preparations should an outage occur during the rollover event. Through the IV&V process, the system was identified and the appropriate resources were assigned to address the remediation efforts.

Remediation Status to Date

As of November 19, 1999, the State of California is 97.6 percent compliant with all identified mission critical systems.



Y2K Status Report

In mid-July as the DDA process came to a close, the Y2K PMO identified several entities with a high level of complexity and/or the potential to miss the September 1, 1999, deadline for remediating all mission critical systems. As a result, the Y2K PMO developed an *Escalation Plan*, which included a performance review process. The performance review process began in August 1999 with entity executive-level meetings to focus on the specific action items necessary to remediate their systems before the century date change. The majority of entities participating in this process have completed their action items and are on track. Those entities that continue to have outstanding action items meet frequently with the Y2K PMO to discuss progress and issue resolution. Further, the Y2K PMO submits weekly updates of the status of these entities to the Legislature.

In addition to monitoring the status of the State's mission critical information systems, the Y2K PMO has also been tracking the status of the entities' department-critical systems. The Y2K PMO will continue to monitor the progress of these efforts while maintaining a focus on those entities with mission critical systems not yet completed.

Continuity Planning for Business (CPB)

In accordance with Executive Order D-3-99, each state entity was required to develop business continuity plans to ensure the continuous delivery of essential services in the event of a Y2K failure. To facilitate compliance with the Executive Order, the DOIT developed a comprehensive program which included detailed guidelines to assist State entities with the development of their plans. The DOIT also developed a system to enable the Y2K PMO to monitor and report on the status of the State's continuity planning efforts and progress.

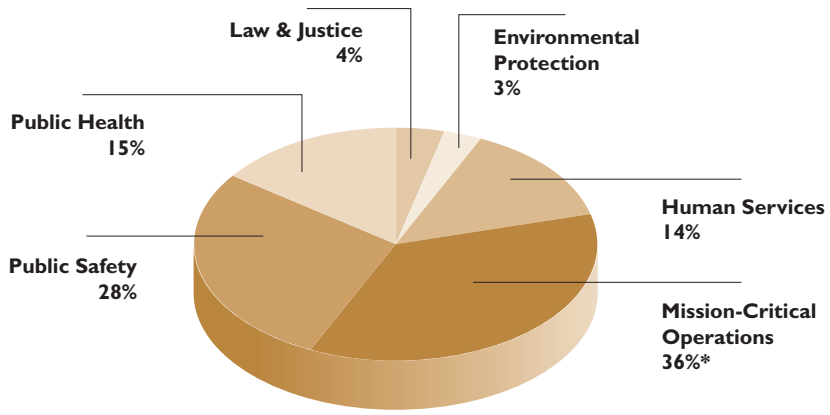
The PMO established three key milestones against which the PMO would measure the State's progress: Analysis, Plan Development and Readiness. The completion dates for these milestones were June 30, 1999, September 1, 1999 and October 15, 1999, respectively. State entities are required to submit weekly updates to the PMO until their continuity planning activities are complete.

CPB Status to Date:

Entities with Mission Critical Processes

Forty-six entities have reported at least one mission critical process. A total of 154 mission critical processes have been identified across the 45 entities. The distribution of the reported mission critical processes is presented in the following chart:

MISSION CRITICAL AREAS REPORTED



**Mission critical operations include systems and/or operations that directly enable one or the other mission critical areas.*

At this date, all 45 entities have submitted continuity plans to the Y2K PMO. In addition, all 45 entities report completion of readiness activities (initial training, testing and implementation preparations) and have submitted a signed Y2K CPB Certification form to the Y2K PMO.

Entities with Department Critical or Non-Mission Critical Processes

In addition to the 45 entities with mission critical processes, the Y2K PMO is actively tracking continuity planning activities for 68 entities whose processes were designated as department critical. Each of the 68 entities has submitted a continuity plan to the Y2K PMO and all but one has submitted a signed Y2K CPB Readiness Certification form.

Testing

Testing is crucial to the success of all Y2K remediation work because it validates that all potential date issues were identified and corrected. The following narrative gives information about the process for gathering data on the status of Y2K testing in three main areas: (1) mission critical systems for state entities, (2) state systems with interfaces with county systems, and (3) high profile external interfaces. Testing activities focus on maintaining the provision of essential services to residents of California and other key stakeholders of State government. County interfaces and high profile interfaces also involve the provision of essential state services delivered through non-state entities.

Mission Critical Systems Testing

Through tracking of the CAP items, the State and consultant staff have identified a small number of entities with mission critical systems that still have outstanding testing activities. For those entities, the State and consultant staff are working to facilitate the application test scheduling, completion of testing, and tracking those milestone dates in the CAP for each affected entity.

County Interface Testing

State and County interface testing involves the identification and tracking of interface testing with counties. The success of this "electronic handshake" is crucial to ensure that state services can and will be delivered to local communities through these county interfaces. This includes the testing of systems deemed by state entities to be non-mission critical (in terms of delivery of state services) but deemed mission critical by counties, based upon their provision of services.

The Y2K PMO is tracking:

- All state entities with county interfaces (e.g. Department of Health Services, Department of Motor Vehicles, Department of Transportation, etc),

- All state entities that have not conducted critical interface testing to counties, and
- The status of all testing to date.

In addition, the Y2K PMO continues to work with the testing proctor engaged by the DOIT to track the scheduling and execution of county interface testing, and then report that status through the existing Y2K PMO processes. The Y2K PMO will reconcile status information provided by the test proctor and each state entity to ensure compliance with the test procedure.

High Profile Interface Testing

High Profile interface testing involves the identification and tracking of testing of non-mission critical interfaces whose failure would cause significant disruption to businesses or services businesses and residents of the State of California. Unlike the DOIT's definitions for mission critical and departmental critical systems, processes, and interfaces, this definition requires state entities to look at their interfaces from the perspective of outside companies and agencies. The entities will identify additional areas of testing to ensure delivery of essential non state-provided services to Californians. To enable this, a questionnaire was developed and sent to all state entities. With the inventory resulting from the questionnaire, the Y2K PMO will be able to report the status of this area of testing.

Y2K Readiness Communication and Outreach

In collaboration with the Governor's Office of Emergency Services (OES) the DOIT facilitated the development and implementation of the Y2K Communication and Outreach Task Force Communications Plan. This plan identified the tasks, stakeholder groups, and stakeholder information needs regarding Y2K.

Communication and outreach were key components of the *Escalation Plan* developed by the DOIT in July 1999. Consistent, clear, and accurate messages to the various State stakeholder groups are essential to conveying Y2K status and

awareness effectively. Additionally, the DOIT has undertaken a variety of communication and outreach activities described in the plan to ensure Y2K activities are coordinated, messages are consistent, and Californians are informed of the Y2K issue related to information technology. Such activities include:

- Organizing and conducting twelve industry-specific roundtables with selected Y2K industry leaders to discuss overall Y2K status, continuity and contingency planning, and communication to the public.
- Organizing and conducting four Legislature-specific outreach events to educate and train legislative district office staff to assist their constituents in understanding the level of activity and preparedness the state has undertaken.
- Modifying the Y2K website to make it easier for the public to view Y2K status information for State entities.
- Providing entity status information on the Y2K website, which is comparatively more detailed than other state Y2K websites and publishing updates to the entity status information on a weekly basis for public viewing.
- Cosponsoring with OES Y2K Emergency Preparedness and Business Continuity Planning Conference for Native American Indians.
- Providing updates and insights to media representatives including broadcast, newspaper, internet, and magazine mediums.
- Preparing and distributing to the Legislature, the Governor's Office, and other state stakeholders, the Quarterly Reports as well as the Annual Report.

In order to continue fulfilling the State's Y2K vision, communication and outreach activities will continue through the end of the calendar year, and possibly beyond. As the Y2K approaches, the public's awareness of the event will heighten. The importance for DOIT to continue consistent, effective communication grows daily. The DOIT will continue its efforts to obtain resources and develop cohesive partnerships with organizations to ensure the public and other key stakeholders receive the appropriate information.

Future Milestones

While the DOIT has achieved many accomplishments and successes through its approach to meeting the Y2K challenge, several future milestones must be readied to fulfill the State's vision of addressing the Y2K challenge.

Y2K Roll-Over Preparation

The DOIT has prepared for and coordinated the efforts needed to manage the Y2K "event weekend." The actual change of the century is the culmination of all actions taken to prepare for Y2K.

The EMC Communication Center will facilitate the collection of technology-related Y2K information from state entities and timely reporting of information to key stakeholders. The EMC Communication Center plans are scheduled to begin testing by mid-November.

The strategy that will be employed by the EMC Communication Center during the "event weekend" will be coordinated with the *Follow the Sun* effort. The objective of this strategy is to track the Y2K impacts/events occurring around the globe, particularly those in time zones ahead of California. Partnerships have been developed with varying organizations to assist with this effort, in addition to mobilizing the staff of the California Trade and Commerce agency's trade offices around the world. The EMC Communication Center will link with the Governor's Office of Emergency Services (OES) to share the information related to information technology incidents. This information will be triaged and passed on to DOIT stakeholders as appropriate. The goal of this strategy is to identify problems faced in other areas of the world, and analyze the probability of a similar problem before or during century changes in California.

Implementation of Y2K Directive 1999-02

On July 30, 1999, the DOIT issued Y2K Directive 1999-02 to all state entities announcing a moratorium "...on installations of, and changes to, computer

hardware and software in production environments to help ensure a stable environment during the transition to the Y2K and through the leap day change."

The implementation of the moratorium is an action taken by the DOIT to maintain the Y2K preparedness of the State. The moratorium is intended to prevent Y2K compliant systems from being changed in ways which may create Y2K problems. It will also reduce the likelihood of introducing new system problems that could be confused for Y2K problems during the rollover. The duration and scope of the moratorium were developed in conjunction with the Governor's Y2K Business Council and mirror similar moratoria by businesses represented on the Council.

The moratorium will be in effect from November 1, 1999 through the end of business on March 10, 2000. This moratorium applies to installations of new or modified hardware, peripherals, operating system software, utility software, database software, packaged application software, custom developed software, embedded systems and system interfaces. This moratorium applies to all computer hardware and software that is part of the State's computer and network infrastructure. The moratorium applies to "production environments only." The opportunity exists for exemptions from this moratorium; however, the level of review and approval is considerable.

Y2K Transition

Activities to effectively prepare for the change of the century have been time and resource consuming, and will continue after January 1, 2000.

The DOIT will transition from Y2K and ensure "business as usual" activities continue through the leap year event, which occurs at the end of February 2000.

Y2K Silver Linings

One of the many silver linings of Y2K is how well the concept of managing large, complex technology initiatives through a coordinated PMO has served the State. A PMO is an accepted best practice in the private sector today. Project

offices and program management offices are frequently used by other organizations to limit risk and more effectively manage the delivery of large systems. The DOIT plans to adapt the PMO concept to future management of state IT programs and projects.

Additional benefits of the Y2K effort include:

- Unparalleled cooperation and communication among state agencies, including the sharing of both ideas and personnel
- Vastly improved cooperation and relations with legislative oversight committees
- Increased guidance, advice and information sharing from California's leading technology and financial services companies, through the Governor's Y2K Business Council
- Focused outreach to communities and constituencies on Y2K issues
- Proven methodologies for coordination and management of enterprise-wide IT initiatives (PMO, IV&V, testing)
- Significant involvement and engagement of counties
- Development of robust status reporting through public and private web sites (Internet and intranet)
- Improved practices and skills for system and external interface testing
- Documented and tested business continuity plans
- Development of standard metrics to measure performance across all activities for all entities

Independent Review of State's Y2K PMO

To ensure the State's Y2K PMO process was comprehensive, the DOIT engaged a leader in information technology research, analysis and measurement,

to perform their standard Y2K PMO review. This review, which is based on standards of achievement and best practices across nine major process areas, has been performed at many of the leading private and public entities across the country, and those results form the basis for comparison and evaluation.

As part of the review process, DOIT management and consultant staff were interviewed to review both the quantity and quality of the documentation produced and maintained by the program, including numerous guides and reports and the PMO approach. Other state entities were interviewed to review their individual programs as well as their interactions with, and support by, the PMO. The findings were then consolidated into the nine major process areas and evaluated against the best practices and standards for each.

In this preliminary comparison, the DOIT Y2K PMO program was rated as achieving "high conformance" with best practices in eight of the nine process areas; the remaining area achieved a "medium conformance" level in the state's evaluation of its supplier readiness because the state distributed this effort to departments rather than fully consolidating the effort. Once the final report is received, DOIT will evaluate the recommendations and develop appropriate actions.

Department of Information Technology's Vision for California State Government's IT Future

2

The DOIT has been charged with providing leadership, guidance, statewide coordination and oversight of information technology (IT) in state government pursuant to Senate Bill 1, (Chapter 508, Statutes of 1995) and its successor, AB 1686 (Chapter 873, Statutes of 1999). The DOIT is engaged in developing a new IT model that will carry the state into the 21st century.

The DOIT staff will provide oversight in the following functional areas: application development, project management, IT procurement, IT contract management, IT vendor management, data center issues, network services, operational recovery plans, and security. These functional areas will represent th e DOIT services and will assist the state in developing, implementing and deploying successful IT projects.

Among other statutory responsibilities, the department is responsible for evaluating and monitoring the implementation of departmental IT initiatives and improving IT processes such as procurement, project management, and risk management. Governor Davis also empowered the DOIT through the Y2K Executive Order D-3-99 to lead California's Y2K Program. The successful implementation of this program has served has a model for the DOIT to alter its business model and fully implement the provisions of Chapter 508, Statutes of 1995 (SB 1). This will serve as a basis for enabling new information technology projects beyond Y2K.

Currently in the United States, about 90 percent of all government services are still delivered in a face-to-face mode. California agencies continuously move towards a more efficient and effective government through providing seamless services, offering new services, and delivering self-service in new places. The innovations in technology and social sciences are facilitating this effort through "electronic government" or "e-government."

Seamless service acknowledges the fact that a customer of state government doesn't care which department, agency, or branch of the government will provide services. This has been the thrust behind "One-Stop" shopping. A customer, for example, who is unemployed, could walk into a One-Stop center and get information about unemployment benefits, job training, and job opportunities. The difference today is the technology is enabling One-Stop models to be accessible anywhere and anytime someone can access the Internet.

Implementing e-government raises many questions. For example, how will success be measured? How does the state identify and resolve the technical, legal, political, organizational, and social issues generated by Internet? Today's answers require a new level of communication from stakeholders in the public and private sectors and from researchers in hard and soft sciences.

Communication can be enhanced through an interdependent model, which also provides input from multiple perspectives. For example, a project using the interdependent model would require that we bring people together representing all aspects and phases of a project from fiscal, legal, procurement, technical, business, and any other departments or disciplines involved from brainstorming a concept to implementing the project to capturing lessons learned. This model, brought to the DOIT from the private sector (Y2K Business Council), results in policies and standards that enable and facilitate project success and build an infrastructure and road map for the future.

A step toward ensuring the success of this model is the placement of change agents in key agencies in state government.

Agency Information Officers

The Agency Information Officers (AIO) report to the Chief Information Officer (CIO) for the state of California. These new positions have been designed as change agents to promote IT best practices and to lead in the delivery of effective and innovative technology solutions. The AIO is responsible for overseeing the technology functions within an agency, leading from 500 to 2,000 IT employees.

The establishment of these positions reflects the interdependence and collaboration needed to deliver successful IT projects. Under the direction of the State CIO, in consultation with the Agency Secretary and Departmental Information Officers, and supported by the Department of Information Technology, the AIO will assess core business operations and programs, identify opportunities, recommend technology solutions, and lead information technology resources in the delivery of technology solutions for the agency and its constituents.

Desirable qualifications that will be assessed at the time candidates are interviewed include, but are not limited to, experience in enterprise technology solutions, change management, business process analysis, ability to perform high level administrative and policy-influencing functions effectively, and ability to develop cooperative and collaborative relationships and with all levels of government. In addition, the selection will also be influenced by the candidate's knowledge of the assigned agencies and the practices of the Legislature and Executive Branch; principles, practices, and trends of public administration, organization and management.

It is anticipated that these AIO positions will be filled by spring 2000.

Maintaining and Improving California's IT Infrastructure

3

Increasing the Success of IT Projects

It is generally believed that the DOIT's most important mission is to prevent the failure of projects to develop new information technology systems. The recent failure of a number of large information technology projects, including several after the establishment of the DOIT, has continued the focus on the problems with the state's information technology projects. Several studies, both within state government and in the industry as a whole indicate that information technology projects are subject to a number of problems, and that most of those problems tend to be systemic and difficult to address rapidly.

The devotion of a large proportion of state IT resources to the Y2K problems, along with the Executive Order restrictions on the commencement of new projects, has somewhat diverted external attention from the efforts to improve IT project success. Instead of distracting the DOIT from its efforts to improve IT project success, the Y2K efforts have given the DOIT time to refine the application to state government of a group of "best practices" it has identified from the private sector. While the length of the state IT project cycle will delay clear observation of the results of these efforts for some time yet, the DOIT believes that it has made substantial progress in improving the quality of the state's portfolio of planned and initiating IT projects, and that progress will become visible through increasing project success over the next several years.

The DOIT believes that the most important principle it is applying to state IT project planning is the structural concentration of project activities on meeting business objectives. This concentration must be applied at the very earliest stages of project planning, and be continued throughout the project life cycle.

Consequently, the DOIT is applying new or newly-emphasized requirements to several project components to ensure a business focus.

Certainly, a project cannot be crafted to ensure delivery of business value if the business goals of the project are not clearly defined. Each project proposal must include a specific identification of the business benefit that will be obtained through the project. This benefit must be refined and constrained to precisely identify which system functions are necessary to deliver that business value, which would provide marginal but not critical increases in that business value, and which potential system functions do not contribute significantly to the delivery of value. The DOIT encourages departments to include in the initial project phase only the essential functions, to delay development of marginally-valuable functions to later phases, and to eliminate functions that deliver little or no value at all. While essential in crafting the initial project plan, this understanding of essential functions is equally important to the management of the project development and implementation phase to ensure the control of project scope.

Seeking a Business Solution

For large, complex activities, the DOIT generally also requires that the procurement be directed towards acquisition of the required business solution. Such business-based procurement methodology, as outlined in the DOIT Management Memo 98-12, describes the business problem in business terms, and allows the proposing bidders the maximum latitude in offering a detailed technical solution. Finally, the business focus requires that business management be involved in the project throughout the project lifecycle to ensure that the project activities do not stray from the delivery of those system functions essential to the delivery of core business value, and that the ultimate users of the systems are prepared and willing to adopt the new system when delivered.

While crafting projects to deliver business value seems obvious, it requires the shift of a number of long-entrenched paradigms, both in the bureaucratic processes of government information technology projects and in the perspective of IT and procurement professionals. The majority of the state and contractor staff expe-

rience in state IT procurements is in the research and development of detailed technical specifications. The state's professionals are used to evaluating the available technologies, selecting a preferred approach, and writing requirements for vendors to deliver that approach. Changing to a business approach is not just a matter of shifting a mind-set for specification writing; it involves the development of new skills and experiences in ensuring that the business requirements, and responding contractor proposals, lead to clearly-defined contractor deliverables and contractual guarantees.

Further, while the DOIT efforts towards business-based projects is based upon the conclusion that the existing approach of writing technical specifications has consistently failed to deliver full business value, the existing approach did provide certain benefits. Foremost among those benefits was the ability to ensure that the delivered technology could be operated successfully by existing state technical staff. The growing problems with the availability of skilled technical staff require the state to address this concern in any new procurements. The costs of ongoing support for a system increase dramatically if the system requires dedicated support because there are no other systems to share the costs of training and maintaining a technical staff. Nevertheless, the DOIT believes that consistency with the existing technical environment is less important than the delivery of business value, and that given the rapid change of information technology, a devotion to existing technologies adds unacceptable risk.

Know Your Costs Up Front

The DOIT shares an interest with the Department of Finance and the proposing department that an accurate assessment of operational costs be included in the evaluation of project technical approaches. In practice, these costs can be difficult to obtain if the state intends to operate the system internally, as at a state data center, and especially if the technology is unfamiliar to the state. The DOIT, Department of Finance, and Department of General Services Procurement Division have been working closely with the data centers to develop methods to ensure that if equally viable technical solutions are proposed, the state selects the one that includes the lowest onetime and ongoing costs.

This leads to another, related DOIT project principle: that it is better to adapt an existing, working information technology solution than to develop a new one. The use of COTS—Commercial Off-The-Shelf software systems—is a now a viable option for many state business problems. The state's business problems are often similar to those of other governments or of the private sector, and working solutions are often in place. While due consideration must be given to the state's unique requirements, particularly its great size and diversity, the DOIT believes that by allowing the vendor community broad flexibility in technical approaches will naturally lead to selection of appropriate, existing solutions as less expensive and less risky than embarking on new development efforts. The benefits of using such COTS are so great, in fact, that the DOIT encourages departments to review their business processes in light of the available products, and to consider adapting their processes to those products. Of course, the DOIT also generally encourages departments to conduct business process reviews and any necessary reengineering before beginning automation projects rather than automating flawed processes.

Enterprise Systems

Somewhat related to this COTS principle is a concern for enterprise systems. Certain activities, such as payroll/personnel, inventory, accounting and purchasing, are common to many or most state government entities. Further, there are potential benefits to the state enterprise as a whole to the ability to access and process information from individual state entities. The DOIT is charged by statute with "identifying which applications of information technology should be statewide in scope, and ensure that these applications are not developed independently or duplicated by individual state agencies" [(Government Code Section 11711(f))]. Not surprisingly, such applications are likely to be common enough in their application that COTS products are available. The state is currently underway, with close DOIT involvement, in two major enterprise efforts led by the Office of the State Controller: one for payroll/personnel systems, and one for travel expense claims. Each project is currently in the procurement phase, and involves all of the DOIT project practices, and each is expected to be used by a substantial portion of the state's entities. The DOIT anticipates that the success of these projects will lead to similar applications for other enterprise applications.

While the DOIT believes that no amount of project management expertise or oversight will turn a bad project into a good one, and that projects must be crafted for success and consistence with enterprise goals before commencement, it does not underestimate the importance of project management and oversight in project success. An essential component of a successful project plan is the identification by the requesting department of the skills and experience the project manager must possess for the proposed activity, and adequate provision to obtain and retain such a project manager. In association with the project manager, the requesting department must demonstrate that it understands and can implement basic project management processes such as change control, issues resolution, schedule management and contract management. The DOIT may require that departments include the costs of project management consulting in its project proposal if insufficient skill or experience exist at the department. The project contractor must also commit to providing and maintaining project management personnel and processes appropriate to the project.

The DOIT has learned to employ a variety of project oversight approaches to ensure that it becomes aware of project problems in time that corrective actions may be applied successfully. In some cases, where costs and risks are very low and well-understood, and where the department possesses the necessary skills and experience, the DOIT may delegate the project to the department. Generally, the DOIT will require that even low-risk projects provide regular project status reports, and will evaluate those reports as received to identify signs that the department will require assistance to complete the project successfully.

For most large projects, the DOIT will require the department to fund a contractor, employed and overseen by the DOIT, to provide independent project oversight. Such contractors are expected to review all project management documents and metrics, to participate in project management and issues meetings, and to provide the DOIT and the department with periodic reports of project progress and potential problems. This approach is an evolution from an earlier effort to require the department to contract for such services in that the DOIT has come to believe that the oversight contractor was insufficiently independent unless employed directly by the DOIT.

Such independent oversight contractors are frequently referred to as Independent Verification and Validation (IV&V) contractors. More correctly, IV&V refers to a specific set of standards-based activities associated with ensuring that delivered technology products are consistent with specifications. The DOIT continues to employ such formal IV&V, which is typically more costly than independent project oversight, as necessary for projects involving a substantial amount of software development and integration. Typically, the DOIT will require the department to include the costs and provisions for IV&V in the project plan.

Inevitably, despite these efforts at proper project planning and management, some projects will get into trouble. While the Director of the DOIT has the statutory power to terminate such projects, the DOIT efforts are focused on ensuring that the DOIT and the department become aware of project problems when there is plenty of time to address them. As more of the state's active projects were developed and are overseen under the DOIT project principles, the likelihood of project failure will continue to decrease, and catastrophic project failures, in which considerable time and money are invested without result, will be eliminated.

It is important to note that in the application of its approach to improving the success of state IT projects, the DOIT does not believe it is necessary or effective to reject a substantial number of IT projects. Instead, the DOIT believes that it must ultimately disapprove project proposals only if the department is unable to identify a business objective for the activity, if available technology cannot be applied to address that business objective, or if the requesting department is unwilling or unable to structure and manage the project in conformance with statewide objectives and in a manner likely to achieve success. The DOIT prefers to partner with the departments in developing the project plan, rather than act as an independent and arbitrary judge of those plans.

In practice, this means that the DOIT staff involved in project Feasibility Study Report evaluation frequently spend a considerable amount of time working with departments to correct deficiencies in the project approach presented in the report, with the goal of cooperatively crafting a sound project plan. While this process

may appear to outside observers as both unnecessarily slow and ultimately inconsequential—most projects are eventually approved—it is the only approach wholly consistent with the application of information technology to meet business needs.

The DOIT anticipates that as the characteristics and value of the principles it is applying to improve projects become understood by departments and included from the outset in project proposals, the time and effort required for the DOIT involvement in the project initiation process will decrease substantially. The DOIT has begun, and will increase, efforts to work actively with departments in developing an understanding and appreciation for the project characteristics the DOIT believes are necessary for success so that departments and their business partners can include them in their independent planning efforts.

The concentration on preparing for Y2K has allowed the DOIT to refine its project success guidelines, and to begin the work, with a limited number of projects, of adapting existing processes and practices for procurement, for data centers, and for departmental project planning, to employ those guidelines. Despite the devotion of the majority of the DOIT resources to Y2K efforts, the DOIT has continued to apply the full range of practices, including the time-consuming cooperative development efforts with departments, throughout the past year. The DOIT anticipates that the coming year will continue to show the benefits of the DOIT project practices and leadership, and to continue the restoration of the state's role as a leader in government information technology.

Business Continuity and Operational Recovery

Almost every function of state government depends upon the continued availability and operation of information technology systems. This circumstance forces the state to undertake two very different, yet related, planning and preparation activities: *business continuity and operational recovery.*

Business Continuity

Business continuity, or Continuity Planning for Business as referred to in the DOIT Y2K program, involves preparations to continue the delivery of essential services during information systems outages. This activity is necessarily the responsibility of non-IT business program managers who understand both the essential services of their program and the opportunities for manual alternatives. While the prudence of such preparation is noted in statute, until Governor Davis issued Executive Order D-3-99, this activity had been largely overlooked. Concerns that the Y2K might cause disruptions both through failure of state information technology systems and through interruption of underlying public communications, power and other resources has led to an unprecedented awareness and effort in this area.

As noted previously, Executive Order D-3-99 directed state entities to develop business continuity plans to ensure the continuous delivery of essential public services in the event of a Y2K failure. The development and filing of these plans was just a start. To be effective, these plans must be considered living documents. Entities must continue to test and refine their plans as changes occur to their operational environments.

While the DOIT required entities to certify the readiness of their continuity plans for implementation in the event of a Y2K disruption and to continue to test and refine the plans, as necessary, throughout the Y2K rollover, the DOIT lacks the statutory authority outside of the Y2K effort to continue its oversight of this essential activity. Moreover, as previously noted, business continuity planning is properly the province of program management, not information technology. Nevertheless, the DOIT encourages entities to continue this essential activity on an ongoing basis, regardless of the existence of an effective statutory requirement.

Operational Recovery

Operational recovery involves reducing the threats that critical systems will be interrupted, both by efforts to prevent outages and activities designed to speed

recovery of failed or destroyed systems. This activity, generally referred to as disaster recovery or operational recovery planning, has long been a required, if somewhat neglected, responsibility for state information technology managers.

The State's focus for the past year of information technology management has been on Y2K preparations. This activity is essentially a risk management effort consistent with general operational recovery planning, and was the clear priority for information risk management professionals. The activities performed during Y2K preparations, such as inventorying of critical systems and identifying the associated maximum tolerable outage, are an essential step towards a fully effective operational recovery program. Further, many organizations have identified and addressed specific risks, such as those affecting power and communications systems that are not unique to Y2K planning.

Overall, the level of state preparedness for disasters affecting information technology resources has improved dramatically during the past year due to Y2K efforts. However, considerable effort remains to be devoted to the development and maintenance of meaningful operational recovery plans and preparations. During the coming year, the DOIT will work aggressively to refocus its operational recovery policies and programs to ensure that these substantive gains and this planning momentum are not lost in the rush to resume business as usual.

During 1998, the DOIT developed detailed guidelines for the preparation, maintenance and evaluation of operational recovery plans, but delayed release of those guidelines due to Y2K priorities. Those guidelines will be published early in 2000, and adherence made mandatory through a phased implementation during the next few years.

Ultimately, the DOIT goal is to ensure that every information technology system that supports a mission-critical function is managed such that reasonable business continuity plans can be used to continue all essential services until the information technology resources can be restored.

Data Center Consolidation

The DOIT is required by statute to "develop plans and policies in a coordinated fashion regarding . . . [T]he state data centers, including the optimum size and degree of centralization of the data centers" (Government Code Section 11713). The DOIT was further required to provide a report to the Governor and Legislature a "preliminary assessment of the feasibility of consolidating the state's information technology activities including those conducted by agencies on their own behalf, as well as those conducted by the data centers." (Government Code Section 11725).

That preliminary assessment, included in a report on data center consolidation published on July 1, 1997, included four key findings that have formed the basis of DOIT policy regarding the centralization and consolidation of the state's information technology activities, particularly those activities related to the siting and operation of mission-critical systems. Those four findings included:

1. The state had already achieved substantial consolidation into the existing central data centers;
2. That marginal, but not compelling, financial benefits would be obtained by further consolidation of the state's existing mainframe systems operations facilities and organizations;
3. That the scarcity of skilled information technology management and technical personnel would increasingly limit the state's ability to operate effectively multiple operational facilities;
4. The tasks associated with Y2K preparations would be heavily concentrated on the existing state data center organizations, and that any consolidation or similar activity affecting those organizations would add unacceptable risks to the state's ability to prevent Y2K-related disruptions.

From these findings, the DOIT policy towards consolidation has been one of active conservation of the existing partially-consolidated environment. While Y2K constraints, especially as effected by Executive Order D-3-99, have sharply limited

the pace of new information technology initiatives, efforts to address legal requirements and activities begun prior to the Executive Order have often been accompanied by departmental pressures to establish new information technology facilities. The DOIT, mindful both of the issues related to personnel shortages as well as the potential that consolidation efforts might be resumed after Y2K activities were completed, has acted to constrain the development of new information technology operational staffs and facilities unless compelled by legal or other governmental business requirements. As a result of both DOIT policy enforcement and the reduced volume of new initiatives, no new operational facilities have been implemented or approved during the past year.

As with so many other areas in information technology, the unprecedented efforts devoted to Y2K preparations have yielded unexpected benefits for potential future consolidation planning efforts. Notably, the information about the state's existing systems and infrastructure obtained through the Y2K Project Office and related efforts far exceeds the detail and accuracy of the information obtained during the DOIT's 1997 data center study. Perhaps even more important was the development of enterprise-wide planning, communications and project management capabilities through the Y2K effort, and the enhanced awareness at all levels of government that the state's information resources must be managed in a centralized manner if the state is to be capable of meeting the evolving challenges of the next century.

Network Privatization

In December 1996, the DOIT and the Department of General Services jointly published a strategic plan for statewide telecommunications that called for the divestiture of the state-owned CALNET telecommunications and for obtaining a single competitive contract for those services from the private sector. In late 1998, the procurement was completed, and a contract awarded to a team of Pacific Bell and MCI. While there have been some significant problems, primarily with a series of outages affecting the frame-relay data services provided by the contractors, the divestiture and conversion have been completed successfully and on schedule.

All CALNET voice and data communications equipment has been acquired by the contractors and either removed or integrated into the contractors' networks. The physical facilities at Los Angeles and San Francisco, which were housed in buildings scheduled for demolition by the state, have been dismantled and relocated. There have been no significant disruptions to voice or most data communications services throughout this process, which has little visibility to most state users or to the public.

The rates charged for the communications services in this contract are difficult to compare directly to those which would have resulted from the continued maintenance and operation of CALNET, and no detailed study of the cost impact of conversion has yet been performed. There have been substantial cost avoidances through the elimination of the need to upgrade existing CALNET facilities to meet Y2K requirements; the divestiture effectively accomplished the Y2K preparations of the state's telecommunications services without significant additional risk.

In addition, a large number of non-State government entities in California have achieved significant savings by converting their existing contracts for telecommunications services to the state contract. Even when the costs of those contracts are not directly funded by state government, the contract savings provide clear benefit to the state's residents.

It has been widely reported that the state experienced serious and recurring problems with data communications services based upon frame relay technology. These problems, which caused outages of an hour or more to as many as 300 state offices on over 20 separate occasions, directly interrupted state services to its residents, although the public often was unaware of the underlying cause. The contractors, especially Pacific Bell, have taken full responsibility for these problems, and have devoted substantial resources to correct the technical and procedural causes of the outages. Those outages were not directly attributable to the conversion effort itself, but more to certain technical and operational flaws in the service offering. At this time, the frequency of these outages has decreased considerably from its peak in mid-1999, but the state continues to work with the contractor to ensure satisfactory service.

While these data communications outages were not caused by the state, the severity of their impact on state services has prompted a concerted effort to examine the state's use of data communications services as provided both by state entities and its contractors. The DOIT has joined in an cooperative planning effort involving the state's Teale and Health and Welfare Data Centers and the Department of General Services Telecommunications Division to chart the future use and management of communications systems to ensure that the state's business requirements are met. These efforts are intended to form the basis of the ongoing enterprise-wide approach to telecommunications planning that is essential if the state is to meet the rapid changes in the requirements presented by electronic government and the continuing transformation of the telecommunications industry.

Appendix A — Department History and Organization

Department History and Organization

Four years ago, the DOIT was created pursuant to the provisions of Senate Bill 1 (Chapter 508, Statutes of 1995), signed into law in October of 1995. This new department was challenged to bring statewide coordination to California state government's information technology (IT) and telecommunications systems and to ensure that the state receives maximum benefit from its nearly $2 billion annual investment in these technologies.

A number of activities occurred during calendar year 1999, including a new bill, AB 1686 (Chapter 873, Statutes of 1999), signed into law by Governor Davis, which recodified most elements of Senate Bill 1. Considering that AB 1686 does not take effect until January 1, 2000, this narrative of office organization will reflect the activities of 1999 and the auspices of SB 1.

Department Organization

The DOIT originally was structured into four divisions to address departmental responsibilities delineated in SB 1. In addition to these ongoing activities, workload related to Y2K remediation resulted when Executive Order W-163-97 was signed in October 1997. The former administration established Y2K as a state priority and required all departments to defer commencing new computer projects until essential systems are Y2K compliant. The Executive Order also required each agency to identify and resolve Y2K problems and complete remediation no later than December 31, 1998. To help meet these requirements, the DOIT began efforts to address uniform remediation across all California state government. In order to accomplish this task, the Budget Act of 1998 provided $746,000 and 4 limited-term positions through June 30, 2000.

It became clear during the Davis administration transition that these goals were not met. Therefore, the Davis administration reevaluated the status of the state's Y2K efforts and developed a plan detailing the necessary resources and structures that needed to be implemented immediately. Governor Davis outlined this plan under Executive Order D-3-99 by establishing remediation as the state's top information technology priority through June 30, 2001.

After this Executive Order was signed, temporary structural changes were instituted at the DOIT to accomplish this fundamental task. In addition, the Budget Act of 1999 provided the DOIT with 13 positions and 3 temporary help positions through June 30, 2000 for a team to ensure a successful Y2K transition. The positions were identified to ensure that items requiring immediate attention in the areas of procurement, budgeting, legislative affairs, legal, fiscal, and human resources policy development are addressed.

The team was designed to provide expertise and administrative support to coordinate all of the state's Y2K projects and implement various governor's information technology initiatives. The team consists of high-level liaisons and/or staff specialists that coordinate with departmental staffs who are undertaking the Y2K remediation efforts. The team coordinates the Y2K effort statewide, eliminates obstacles and barriers, collaborates across public and private sectors and anticipates post-Y2K eventualities.

All of the incumbents serve as high-level resources to the director of the DOIT and ensure that the Y2K goals and objectives are met. The Y2K policies have a direct impact on all state departments and the private sector. The Y2K project office staff provided objective, independent advice and recommendations on significant Y2K policy issues. In this capacity, team members deal directly with departmental directors and executive staff, agency staff and the governor's office most of the staff are at the second organizational level and report directly to the director of the DOIT.

As Y2K related activities begin to wind up, it is assumed that the structure of the DOIT will return to the core activities.

Chief Information Officer

A consistent theme of Senate Bill 1 was the need for greater statewide coordination of information technology infrastructure and applications. Specifically, SB 1 gives the DOIT responsibility for the "development of statewide vision, strategies, plans, policies, requirements, standards, and infrastructure."

A key component of this statewide coordination was the creation by Executive Order W-120-95, and subsequently by SB 1, of the position of Chief Information Officer (CIO) for the state, reporting directly to the Governor.

SB 1 grants the CIO specific authority to:

- Review proposed information technology projects for consistency with statewide strategies and suspend or disapprove initiation of a project according to that review;
- Make recommendations for remedial measures to be applied to agency information technology projects, including the use of independent oversight;
- Develop policies and requirements needed to implement SB 1 in the State Administrative Manual (SAM) or by Management Memo.

Legislative and External Affairs Office

Information technology and telecommunications are issues of significant interest to the Legislature, media and the public. The Legislative and External Affairs Office accommodates requests for information and monitors IT related legislation.

Legal Services Office

Many IT and telecommunications issues have significant legal ramifications. The rapid development of the information economy is forcing significant changes in major bodies of law that directly impact state government, including copyright, privacy and taxation. The state's telecommunications and IT projects are largely exercises in procurement, which in turn are fundamentally exercises in contract

law. The legal counsel ensures that the state's interests are protected and the agencies' legal staff are provided with the most up-to-date information and resources to effectuate the required legal changes.

Planning and Project Initiation Division

The DOIT created the Planning and Project Initiation Division to assist state agencies and departments in creating IT strategies and plans that will meet their business needs, maximize the return on IT infrastructure and mitigate project risks.

Specifically, the Planning and Project Initiation Division is responsible for:

- Assisting the CIO in developing California's statewide information technology strategic plan;
- Providing guidance and assistance to agencies and departments to ensure that their information technology plans are consistent with the statewide information technology strategic plan;
- Reviewing and making recommendations to the CIO regarding approval of Feasibility Study Reports (FSR), Special Project Reports (SPR) and various IT project-related documents.

Oversight Division

Government Code 11700 et. seq. charges the DOIT with responsibility for information technology project oversight. To carry out this responsibility, the DOIT has ensured placement of independent oversight teams on all major projects identified by the department as warranting close attention. Increasing the level of project oversight, both through the efforts of the Oversight Division and through the use of independent private sector experts, continues to be the top priority of the DOIT.

Specifically, the Oversight Division is responsible for:

- Providing project oversight on high-risk, large, complex projects;
- Developing statewide project oversight strategies, policies and processes to improve the state's overall management of information technology;
- Developing and implementing appropriate policies, requirements and processes for risk assessment on information technology projects.

Technology and Infrastructure Division

Technology and infrastructure are the foundations which support information technology, enabling computers to be networked and information to be transported and shared. As such, SB 1 gives the DOIT responsibility and authority for state telecommunications policy. The critical nature of this responsibility warranted the creation of the post of Chief Networking Officer, the first position to be so specified by any state in the nation.

The Technology and Infrastructure Division managed by the Chief Networking Officer has been charged with development and integration of the state's telecommunications infrastructure to meet the needs of California government. This division provides guidance to all state agencies in their use of telecommunications technologies, security and disaster recovery. Major projects for this division include managing the data center and telecommunications network consolidation efforts, and setting state policies relating to messaging, inter-networking, operational recovery, and information security.

Special Projects Division

SB 1 charges the DOIT with addressing information technology issues which have statewide implications, thereby avoiding situations where a lack of statewide coordination may result in disjointed, unstructured, incompatible and costly agency-

by-agency solutions. The DOIT created the Special Projects Division to identify and address issues of statewide significance and successful implementation of information technology projects.

DOIT IT Project Office

The DOIT created the IT Project Office to foster a higher success rate for the state's IT projects. The Project Office adheres to a "statewide, enterprise-wide" perspective to ensure that IT projects initiated within state government are consistent with statewide strategies, policies and standards. It promotes successful and effective management of state IT projects through appropriate oversight and advocacy. Additionally, it promotes communication between the Administration and state organizations with regard to business priorities.

Within each state entity, the Project Office promotes a broad-based strategic focus versus individual project focus. The Project Office's goals are as follows:

- Ensure IT projects are consistent with statewide strategies, policies, standards and state organization business and IT strategies;
- Promote successful and effective IT project management through oversight and advocacy;
- Promote partnership between business and IT organizations;
- Promote organizational focus (versus project focus) and project coordination within state organizations, and assess organizations' ability to undertake multiple projects;
- Ensure appropriate monitoring of IT projects to determine when external assessments are required to ensure project success;
- Develop and maintain a computer-based system for use by the DOIT, the Legislature and departments for all state information technology projects.

Administrative Services Division

The Administrative Section is responsible for providing budgeting, fiscal, personnel services, procurement, facility, training, internal contracts, and other administrative support to the DOIT. These responsibilities include dealing with state departments, coordinating the departmental budget and accounting functions, business services functions (i.e., procurement, reproduction, space management, records retention, etc.) coordinating internal contracts with control agencies and vendors, labor relations, EEO, personnel and payroll transactions, and providing internal information management services.

Advisory Councils

Senate Bill 1 (Chapter 508, Statutes of 1995) required the establishment of advisory councils to assist the State Chief Information Officer (CIO) in the development of statewide information technology policy. The DOIT assembled two advisory councils, one consisting of state government information technology and policy executives, the other consisting of experts from the private, academic and nonprofit sectors.

During 1999, pursuant to Executive Order D-3-99, five strategic task forces were created to bring closure to a variety of Y2K concerns and issues. It is expected that the Y2K CIO Council, made up of Chief Information Officers for the individual state agencies and departments, and the California Y2K Business Council, membered by representatives from California's most innovative information technology companies, will continue service in the spirit of SB 1 after the Y2K issues are reconciled. It is possible that both councils may become state open meeting bodies.

Year 2000 CIO Council

During 1999, The Y2K CIO Council served as the Information Technology Coordinating Council as called for in SB 1. Specifically this body served to ensure that any outstanding Y2K issues of individual state entities would be elevated to the DOIT if executive sponsorship was needed on remediation issues.

The Y2K CIO Council is composed of agency and department CIOs. This advisory council's primary purpose is to recommend changes in state policy and procedures which allow for the optimum use of IT and information management techniques in state government. This purpose is achieved through such methods as:

- Fostering and promoting the use of IT at all levels in state government;
- Participating in the DOIT's development of IT policies and procedures;
- Participating in subcommittees to address IT issues of statewide interest or impact;
- Pursuing coordinated multi-agency information technology solutions to common challenges and opportunities;
- Exchanging information to enable members and constituents to keep abreast of advances in information technology and the management of information;
- Building on the state's past information technology successes;
- Fostering pride and innovation through the recognition of state information technology success stories with the state's annual Information Technology Award.

California Year 2000 Business Council

The California Y2K Business Council assists the State in preparing California for the Y2K, with an overall goal of providing continuity of government and business services into the Y2K. This council took the place of the California Infor-

mation Technology Commission, called for in SB 1. The Council will promote public sector and private sector partnerships by ensuring coordination. The Council convenes monthly to share information, educate, plan and collaborate on the Y2K effort.

Specifically, the Council:

- Reviews strategies for the Y2K effort and provides "best practices" to State agency challenges;
- Promotes Y2K readiness through educational opportunities;
- Assists and advises on policies, procedures and projects to address the Y2K challenge;
- Explores areas where public/private partnerships can enhance and expedite the State's Y2K efforts.

The Business Council has three working sub-groups to provide detailed assessments and input to the State focused on specific areas of the Y2K effort: project management, testing, and business continuity planning. The Y2K Business Council will continue to meet monthly until January 2000 and the sub-groups are slated to meet at least once between the full council meetings. In addition, the Council members and appropriate officials frequently meet via teleconferencing and maintain an ongoing dialogue via e-mail.

Department of Information Technology 1999 Annual Report

Staff Contributors:

Bill Behnk
Bob Conheim
Elias S. Cortez
Gabriel Cortina
Mary Dixon
Deborah Fraga-Decker
Melissa Gamer
Oscar Gonzales
Rene Gutierrez
Don Heath
Lee Kercher
George Kostyrko
Alethea Lewis
Liz Mechem
Jeff Pell

Director's Photo :

Hector's Studio

Design:

Department of
Water Resources,
Graphic Services

Department of Information Technology
801 K Street, Suite 2100
Sacramento, CA 95814
(916) 445-5900
www.doit.ca.gov